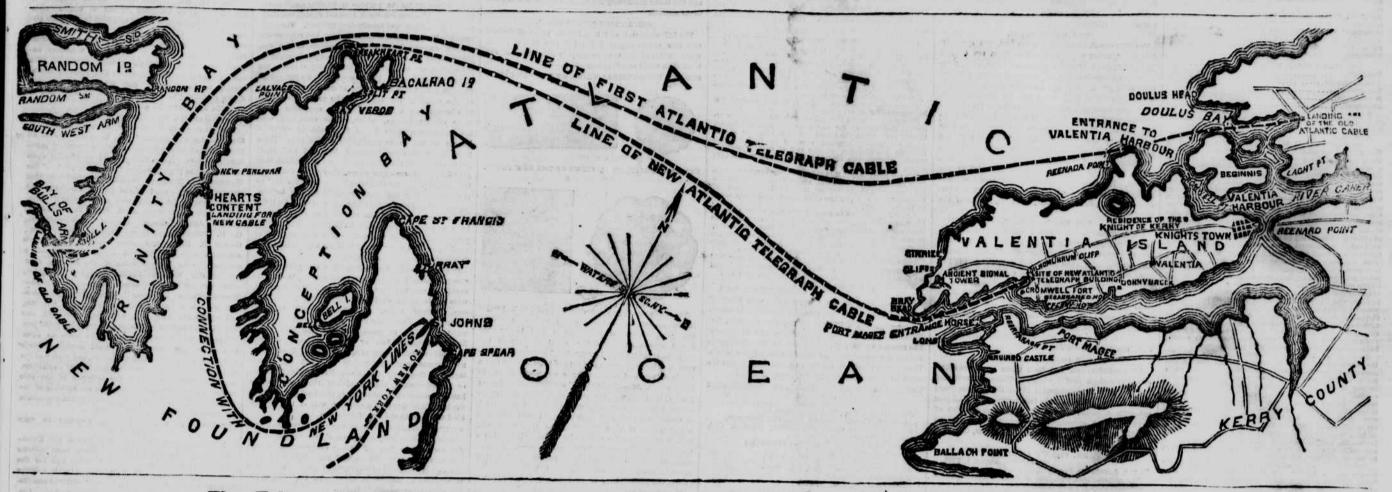
THE GREAT ATLANTIC CABLE.

the Starting Points in Ireland and Newfoundland and Route of the



The Telegraphic Plateau of the Atlantic---The Bed of the Ocean on Which the Cable Will Rest.

SCALE OF MILES

THE CABLE.

THE SHORE END LAID.

The Great Eastern Out at Sea and all Working Well.

Details of the Laying of the Shore End, and the Splice

Six Days Out and Three Hundred Miles Laid.

THE HISTORY OF THE CABLE.

The Manufacture and Laving of the Great Atlantic Cable---Its Cost, Weight, Size and Peculiarities.

All About Submarine Cables and the Manuer of Laying Them, Why They Failed at First and How They Succeeded at Last.

The Great Cable and Its Connections.

Cellins' Overland Line and What Has Been Done About It.

Map of the Great Girdle Around the Earth.

Telegraphic Communication Direct with All Parts of the World.

New York the Centre of the

Universe.

The cleamship City of Boston, from Queenstown the 27th at, arrived at this port yesterday, with details of the lay ing of the Atlantic cable to the same date. The work of wing the shore end at Valentia was completed on the 22d July, the splice with the deep sea cable was made on Mith. On the 27th ult. she was three bugdred miles a bee, having succeeded wishout detriment or disaster of cate of a fraction over three miles per hour, or seventy are miles per day. At this rate it will require twenty be expected that as the Gr at Eastern lightens her s, sed lay the whole length required; but as it is to will merease, she may be expected as Heart's Content ,at

THE SHORE END.

Interesting Details of the Laying of the Shore End of the Cable.

pleted. In part the delay has been due to the overweight

all these Atlantic expeditions. The first of all took scertained, by reference to logs and nautical authorities, that no wind was to be expected in the Atlantic. Yet, at Agamemnon in a heavy wind and sea parted the cable and thus put an effectual end to both prediction and expedition for that year. In the following year it was ttempted in June, during which month had winds were ment was that the Agamemnon was for at least two days in bourty danger of succumbing to one of the worst minated on the very day when sterms were said to be upheard of the 21st of June. This time July has been strong," and the Great, Eastern was to have left here or the 12th of this month. Yet gales of unusual severity have retarded her till now. In the present instance the choice of July seems to have been more than usually un fortunate, masmuch that it is stated here that last while this month, on the contrary, has been precisely the very opposite. To-day, however, all seems to electrical perfectness of the splice to the shore end, the Great Eastern, large as she is, will be out of sight before dusk this evening, fifty miles on her way to New

The place chosen for the landing of the shore end on this occasion is different from that selected on the two previous expeditions, and the change is on the whole an improvement. It is one of those deep inlets between the hills and headlands of this iron bound coast, about a mile long by half a mile wide, with its mouth almost closed against the sea by a ragged irregular knoll of heath and rock, called Butler's Island. Behind this little island, not much larger than the Green Park, the waters of Foilhommerum Bay, as it is called, are calm and still enough, and the sheer black precipices three hundred feet high, which form the boundaries of the deep waters, are seldom marked with foam. Anything more picturesque than the rugged gran deur of this little bay can scarcely be conceived. with its gount, dark cliffs, seamed here and there with gaps and rents, like mountains fallen into ruins. In almost every part they have a steepness which is nearly perpendicular, and it makes one equally giddy little bay is a rough indication of an earthwork, but only just enough to show what was once its regular outline This is one of Cromwell's old forts. At its northern extramity towards the sea rises Bray Head, one of the huge savage looking mountains which, running out into the sea, double the dangers of this dangerous coast, though, from a landsman's point of view, they are invalgable adding so much to the stern grandeur of the scene From the peak of Bray Head the mist is seldow moved, and at its ponderous base the blue waters seldom touch but they are churned into fakes of feam, as the waves keep booming with regular beat against its cliffs, calm or storm, winter or summer. Against this point—the first land which the great roll of the Atlantic meets—the surge is never quiet.

THE DETAILS OF THE LANDING OF THE SHORE PRO-Into this bay, so sheltered by the island and Bray Head, the Caroline was brought round as early as Friday; but though all was still enough inside the cove, nothing could be done beyond it, where, amid thick clouds the ships could not attempt to meet. Yesterday, however, the day was calm, and, what was better still, the little wind that stirred was off the shore, giving smooth water in Poilinemerum Bay. At eight o'clock, there fore, the landing of the shore end commenced, Sir though commenced ander the uliffs with what seems a

nial, only four contrived to get across the land in time

It took nearly two hours to pass it over the string of boats, and by that time all the rugged diffs were crowded by peacantry, who not only thronged the steep, dangerous sort of zigzag path which gives access to the head of the bay, but were perched about on little jets and points where any foothold was to be gained, and often where their stand was so precarlous that it startled one to look up at them. Nor did the interest evinced end here, for the brown of the chif itself was decorated with extemporized flags made out of little cotton streamers of all kinds, bright colored shawls, or even pocket handkerchiefs. Of course, these little emblems of the enthusiasm of the island were not calculated to bear a near inspection; but, seen from the bay below, they gave a wonderful relief of color to its stern dark bands of cliff and a sort of life and play to the rigidity of rocks which it seemed that earth quakes themselves could scarcely move,

island were not calculated to bear a near inspection; but, seen from the bay below, they gave a wonderful relief of color to its stern dark bands of cilf and a sort of life and play to the rigidity of rocks which it seemed that earth-quakes themselves could scarcely move.

As it happened, however, the interest of the islanders was rather prematurely evinced. Not only had the cablete be landed but quite a mile in excess was to be bauled on shore to pass up the cilff and across a couple of fields which led to the telegraph house, and gave communication through the land lines to London. But no sooner was the first atom of the cable seen near the shore than a wild "Hooroo" arose from those on land who saw it coming. With a contagion characteristic of the people the enthusiasm passed rapidly downwards from those on the cilffa to the groups on the winding path, and thence like a current of electricity into the cable beats themselves, the crews of which joined in the shouting, and seeing the end so near the land, and, concluding their work well done, at once proceeded to heave the massive rope into the sea. From boat to boat the first bad example was followed by all until, to the dismay of the cablemen, who could not gat a hearing amid the continued cheers, every fathom up to the stern of the Caroline was thrown overboard.

THE CABLE EXDEMENT.

The result of this touching enthusiasm was that every foot had to be underrun, preparatory to the whole operation beginning dr now. It took some time to effect this, during which it is but fair to say the Irish were silent and dispirited enough, and in reply to the admonitions of the Knight of Kerry promised to refrain from cheering thil at least all was a lose row of figures, men and boys of every rank, from the well-to-do farmer down to the cliff, the scene was one of real animation. Numbers of men were in the water up to their waster or shoulders easing the cable over the rocks, while along the steep point up the cliffs was a close row of figures, men and boys of every rank,

THE SHORE RED SCICESBFULLY LAID AND WORKING.

The mere operation of sinking the shore end was easily, though, from its enormous weight, slowly accomplished, and at elected has night signals came through it that all was well, and the end buoyed in shout one hundred fathoms of water. A steamer was sent round to the Great Eastern yesterday, telling her to hold herself in readiness for an early start this morning. She is expected to be off the body catalde at between ten and eleven to-day. Making the splice with the shore end and testing carefully through it will occupy at least six hours, and this last joint of the Arlantic cable once satisfactority completed, the great journey wilkpegin. She is expected to leave at about five oclock this evening. During she time she has lain at Berrhaven the conductor of the cable has been perfect. The weather is calm for the present, and on the weather all now depends.

DESCRIPTION OF THE SHORE END OF THE CARLS.

occasion; but from the very beginning I have felt an interest which I am sure even the humblest person present has also felt in this greatest undertaking of modern times. (Cheers). I believe there never has been an undertaking in which, not to speak disparagingly of the commercial spirit and the great resources and strength of the land, that valuable spirit has been mixed up with so much that is above it combining all the most noble sentiments for the most beneficial purposes, and to unite one great continent with another. I don't think we should be quite silent when such an undertaking has been imagurated. It has been discussed whether or not this ceremony should be opened with a prayer. Whether that shall be done or not, I am sure there is not a person present who does not feel the utionet thank'ulness to the Giver of all good for having enabled those who have taken an active part in it to bring the streat condertaking to a condition which, I am sure there is not a person present who does not feel the utionet thank'ulness to the Giver of all good for having the streat condertaking to a condition which, I am think any stream and the condition when the stream of the stream of the stream of the condition when a stream of the stre

The Knear or Kreuv.—Three cheers for Mr. Glass and the Atlantic Telegraph and Maintenance Company. (Cheers).

Sir Robert Fext.—Three cheers for all the Atlantic Telegraph Companies. (Cheers).

Mr. Glass.—On behalf of myself and those connected with me I beg to return thanks. I am giad that our labors have been appreciated by these around us to such an extent. I assure you that the work that has been as far accomplished has been a source of great anxiety to us all; but that soxiety has been lessened very much by the fact that we have now landed a cable which we one and all, believe to be perfect. I believe nothing can interfere with the successful laying of the cable but the hand of the Almighty, who rules the winds and waves. So far as human skill has goine, I believe we have produced all that could be desired. We have now to offer our prayers to the Almighty that lie will grant to the undertaking a continuous of success.

Six Robert Feet.—As alluvion has been made to the ruler of the continent which this cable will reach, I give you, with hearty good will, "Health and Happiness to the Bulser of the Continent States President Johnson." (Cheers.)

MAKING THE SPLICE.

VALERTIA, July 24, 1868.

the Misses Fitzgerald, Captain White, R. N., Captai Hamilton, Mr. W. H. Russell, Mr. Edwards, Mrs. Glass, &c. The western extremity of Ireland was reached in about an your, and soon afterwards the magnificent rock that carrie eight hundred feet, and which the incessant beat of the that almost undermine its base. About fifteen honor, the Terrible and Sphinx, were rolling sightly, board, and locking ugher than ever, now that she was light and out of water, was especially lively. It is diffithe routine process which marked the commencement of this enterprise. It had already begun when the Hawk the catters of the Great Erstern were filled with cable, which, passing through the paying out machine astern,

Soon after one o'clock the coils of the deep sea cable were safely wound on board the Caroline, and the work of splicing them at once commenced. This was done by stripping both ends of hemp, outside wires and gotta percha for a short distance, till the copper conductor of the line was laid bare, and pared down to a fine wedge shaped point at either end. The connecting conductors were then overlapped in the form known as "scarf" joint, and fitnily bound together with fine threads of copper wire, till the junction was made even stronger than the main perfolions of the line. The threads and conductor were then soldered together thickly, and stripe of soft gotta percha, like bands of brown tape, were wound layer over layer, and their edges closely pressed, so as to form one homogeneous mass, till a certain thickness was completed. Then came a coating of insulating material called Chatterton's compound, and then again another layer of gotta percha tape, until the whole was inclosed in four rings of the gotta percha and three of the compound. stripping both ends of hemp, outside wires and gutte

were hauled down to show that all was ready.

Actions the saling like still in the loads.

By that time the Great Easter, which had always kept moving her paddles at intervals, had forged allowed of the Caroline some two or three miles, paying out the cable slowly as she went on, and leaving the latter vessel the only float by which one portion of the wire was kept above water. The instant, however, that the flags went down the last fastenings which held it to the Caroline were cast adrift, and with a great spiash the final joint of the Atlanuc telegraph and the first thirty miles of its length went down slowly into the blue water and were out of sight.

The Parting Ballets of the Great Research, Long before this Sir Robert Feel and Lord John Hay

THE DEEP SEA CABLE.

Starting of the Great Eastern .- Laving the Beenn Cable--- Felegraphic Signala.

> Third Day-Monday, July 24. VALENTIA, July 24, 1866

A dispiriting message has been received from the Grea about two or three miles west of the shore end splice, be lieved to be caused by the Great Eastern pulling on her end of the cable with too much strain before the shore

end splice was properly completed. The Great Eastern remains hove to in latitude fifty two, longitude ten, about eighty miles from shore. The rest of the cable remains perfect, and even now the signals to the Clearing House are very distinct.

Fourth Day-Tuesday, July 25. The following telegrams have been received from Mr. A. R. Glass, Managing Director of the Felegraph Construction and Maintenance Company

The cable is all right. There has been a bitch, but all is now rectified. I will send particulars, when I get them from Canning, the engineer.

VALENTIA, July 25 9:30 P. M. Signals received from the Great Eastern at nine o'clock A. M. to-day report the discovery of a fanit and perfect repair of the cable. The intellig nce reached here in splice. The news, however, could not be sent to Lor ion, as the land lines were down between this and Killast signals from the Great Fastern at half-past four o'clock P. M. report that the paying out has been resumed and that all is going well. verse current are remarkably clear and strong.

The following despatches from on board the Great Eastern to Mr. Saward, London, is of interest Trenav-II P M

One hundred and fifty miles run. The hitch was not caused by a sudden strain, but by the cable becoming, as it were, knotted or doubled up, more from being slack than taut.

GREAT EASTERN, WEDNESDAY - 6 A. M. Two bundred miles of cable laid. Signals good. All

Sixth Day-Thursday, July 27. QUEENSTOWN, July 27, 1865.

The steamship Great Eastern was this morning three hundred miles out at sea, paying out the cable siecessully. The signals were good, and the weather fine. A private note from Cyrus W. Field says:-- "We ex pect to reach Reart's Content, Newfoundland shout the

THE HISTORY OF THE CABLE.

The appoincement that the Atlantic telegraph cable has been successfully laid may be daily expected and will be received with demonstrations of joy, will not engage. This, the first great victory of peace, will be hailed in the streets of New York, on "Change" in every mercantile city of the Union and n every household throughout the country where educaton has enabled minds to grasp in thought the vast importance of the extraordinary event, with not less of lov than was avinced on the announcement of the last great victory of the war which culminated in Lee's told tale, but each edition is revised, as each effort has been an improvement on the former, and a detailed doubt a success, with its origin, history, its repeated failures and its final success, will be received with the liveliest interest.

The project of an Atlantic cable was originally conceived in 1853. The magnetic telegraph had not been in existence ten years before enserprising spirits in this

sire which was so raudly ball to America seres

country conceived the idea of extending